

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appln. Of: COLVIG
Serial No.: 10/674,298
Filed: September 29, 2003
For: APPARATUS AND METHOD TO PROVIDE . . .
Group: 3651
Examiner: Prakasam, Ramya DOCKET: TUC920030087US1

Board of Patent Appeals and Interference
US Patent and Trademark Office
P.O. Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

Appellants' Brief On Appeal

This Brief is being filed in support of Appellants' Appeal from the Primary Examiner to the Board of Patent Appeals and Interferences. Appellants timely filed a Notice of Appeal on June 11, 2007.

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REAL PARTIES IN INTEREST

The real party in interest in this appeal is International Business Machines Corporation,
a New York corporation.

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RELATED APPEALS AND INTERFERENCES

To the best of the knowledge of the undersigned attorney and the Appellants, no other appeals or interferences exist which will affect or be directly affected, or have a bearing on, the instant appeal.

STATUS OF CLAIMS

Claims 1-36 are pending. Claims 1-36, stand rejected and are on appeal. The claims on appeal are set forth in **CLAIMS APPENDIX A**.

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STATUS OF THE AMENDMENTS

An Office Action comprising a final rejection of all pending claims was mailed on February 6, 2007. No amendments were filed thereafter. On June 11, 2007, Appellants filed a Notice Of Appeal and a Petition For A Two Month Extension.

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SUMMARY OF THE CLAIMED SUBJECT MATTER

Independent claim 1 provides a data storage and retrieval system comprising one or more data storage devices and an accessor, wherein the accessor comprises a lifting servo section and a first gripper and a second gripper disposed on the lifting servo section. FIG. 1 shows a data storage and retrieval system comprising a plurality of storage frames 110. FIG. 2 shows a frame 110 comprising data storage drives 250 and accessor 210. Accessor 210 comprises a lifting servo section 212. A first gripper 216 and a second gripper 218 are disposed on lifting servo section 212.

Claim 1 further recites operating the first gripper. Support can be found in the specification on page 17 at line 19 through page 18 at line 12, and in FIG. 5 at steps 540 and 545. Claim 1 further recites requesting use of a second gripper. Support can be found in the specification on page 16 at lines 10 through 21. Claim 1 further recites determining if use of the second gripper is authorized. Support can be found in the specification on page 18 at line 12 through line 16, and in FIG. 5 at step 550. Claim 1 further recites operating the second gripper if use of that second gripper is authorized. Support can be found in the specification on page 18 at line 19 through line 22, and in FIG. 5 at step 555.

Claim 13 recites an article of manufacture comprising a computer readable medium having computer readable program code disposed therein to implement the method steps of claim 1. Support can be found in the specification on page 22 at line 7 through line 9.

Claim 25 recites a computer product embodied in an information storage medium to implement the steps of claim 1. Support can be found in the specification on page 22 at line 9 through line 17.

Independent claim 3 provides a data storage and retrieval system comprising one or more data storage devices a first accessor and a second accessor, wherein the first accessor comprises a lifting servo section and a first gripper and a second gripper disposed on the lifting servo section. Support can be found in the specification on page 12 at line 21 through page 13 at line 3. FIG. 1 shows a data storage and retrieval system comprising a plurality of storage frames 110. FIG. 2 shows a frame 110 comprising accessor 210. Accessor 210 comprises a lifting servo section 212. A first gripper 216 and a second gripper 218 are disposed on lifting servo section 212. FIG. 3 shows two accessors, namely accessor 210 and accessor 215.

Claim 3 further recites operating the first accessor but not the second accessor. Support can be found in the specification on page 14 at line 1 through line 3. Claim 3 further recites requesting use of a second accessor. Support can be found in the specification on page 16 at line 10 through line 12.

Claim 3 further recites determining if use of the second accessor is authorized. Support can be found in the specification on page 17 at line 1 through line 9, and in FIG. 5 at steps 560, 570, and 580. Claim 3 further recites operating the second accessor if use of that second accessor is authorized. Support can be found in the specification on page 19 at line 15 through line 21 and in FIG. 5 at step 565, and in the specification on page 20 at line 1 through line 14 and in FIG. 5 at step 575, and in the specification on page 20 at line 20 through page 21 at line 4 and in FIG. 5 at step 585.

Claim 15 recites an article of manufacture comprising a computer readable medium having computer readable program code disposed therein to implement the method steps of claim 3. Support can be found in the specification on page 22 at line 7 through line 9.

Claim 27 recites a computer product embodied in an information storage medium to implement the steps of claim 3. Support can be found in the specification on page 22 at line 9 through line 17.

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

The issues presented on appeal are:

1. Whether claims 1, 13, and 25, are unpatentable under 35 U.S.C. § 103(a) over Plutt et al. (U.S. Pat. No. 6,591,164) in view of Dimitri et al. (U.S. Pub. No. 2002/0062167).
2. Whether claims 2, 14, and 26, are unpatentable under 35 U.S.C. § 103(a) over Plutt et al. in view of Dimitri et al. et al and Grobler (U.S. Pat. No. 6,799,084).
3. Whether claims 3, 4, 6, 8, 9, 11, 15, 16, 18, 20, 21, 23, 27, 28, 30, 32, 33, and 35, are unpatentable under 35 U.S.C. § 103(a) over Plutt et al. in view of Dimitri et al.
4. Whether claims 5, 7, 10, 12, 17, 19, 22, 24, 29, 31, 34, and 36, are unpatentable under 35 U.S.C. § 103(a) over Plutt et al. in view of Dimitri et al. et al and Grobler.

ARGUMENTS ON APPEAL

I. THE EXAMINER IMPROPERLY REJECTS CLAIMS 1, 13, AND 25 UNDER 35 U.S.C. § 103(a) AS BEING UNPATENTABLE OVER PLUTT ET AL. IN VIEW OF DIMITRI ET AL.

Plutt et al. teach a storage library system comprising one or more redundant robots disposed therein. Col. 1 / Lines 41-55. Each of Plutt's robots comprise one gripper assembly 201. Col. 3 / Lines 30-48.

Dimitri et al. teach a data storage library which comprises multiple intelligent robots, i.e. "pickers." Paragraph [0010]. Dimitri et al. teach use of pickers which comprise one gripper. Paragraph [0042]. "Each picker includes a gripper 25 . . . a plurality of servo motors to move the picker in the X direction, to move the gripper in the Y direction . . ." Paragraph [0042]. FIG. 1 shows two pickers each comprising a single gripper 25.

Neither Plutt et al., nor Dimitri et al., singly or in combination, teach or suggest a method which uses, or an article of manufacture which comprises, or a computer program product to provide redundant resource availability which uses, an accessor comprising a lifting servo section and a first gripper and a second gripper disposed on that lifting servo section, as recited in Applicants' claims 1, 13, and 25, respectively.

Neither Plutt et al., nor Dimitri et al., singly or in combination, teach or suggest a method, or an article of manufacture which implements that method, or a computer program product which implements that method, which requests use of the second gripper disposed on the accessor, as recited in Applicants' claims 1, 13, and 25, respectively.

In addition, neither Plutt et al., nor Dimitri et al., singly or in combination, teach or suggest a method, or an article of manufacture which implements that method, or a computer

program product which implements that method, which determines if use of the second gripper is authorized, as recited in Applicants' claims 1, 13, and 25, respectively.

Moreover, neither Plutt et al., nor Dimitri et al., singly or in combination, teach or suggest a method, or an article of manufacture which implements that method, or a computer program product which implements that method, which operates the second gripper if use of that second gripper is authorized, as recited in Applicants' claims 1, 13, and 25, respectively.

The Supreme Court recently addressed the issue of obviousness in *KSR International Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 167 L. Ed. 2d 705 (2007). The Court held that the *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 86 S. Ct. 684, 15 L. Ed. 2d 545 (1966), factors still control an obviousness inquiry. Those factors include "the scope and content of the prior art" and the "differences between the prior art and the claims". *KSR*, 127 S. Ct. at 1734 (quoting *Graham*, 383 U.S. at 17-18).

For the reasons set forth above, Appellants respectfully submit that the prior art of record fails to teach or suggest all the elements of Appellants' claims 1, 13, and 25. Appellants further respectfully submit that the Examiner incorrectly rejects Appellants' claims 1, 13, and 25, under 35 U.S.C. § 103(a) as being unpatentable over Plutt et al. in view of Dimitri et al. and Grobler.

II. THE EXAMINER IMPROPERLY REJECTS CLAIMS 2, 14, AND 26 UNDER 35 U.S.C. § 103(a) AS BEING UNPATENTABLE OVER PLUTT ET AL. IN VIEW OF DIMITRI ET AL. AND GROBLER

Plutt et al. teach a storage library system comprising one or more redundant robots disposed therein. Col. 1 / Lines 41-55. Each of Plutt's robots comprise one gripper assembly 201. Col. 3 / Lines 30-48.

Dimitri et al. teach a data storage library which comprises multiple intelligent robots, i.e. “pickers.” Paragraph [0010]. Dimitri et al. teach use of pickers which comprise one gripper. Paragraph [0042]. “Each picker includes a gripper 25 . . . a plurality of servo motors to move the picker in the X direction, to move the gripper in the Y direction . . .” Paragraph [0042]. FIG. 1 shows two pickers each comprising a single gripper 25.

Grobler teaches a data vending system 10 comprising a data depot 12 comprising searchable data. A user access the data depot 12 using a vendor 14, 16, 18, comprising a data dispensing device 20, 22, 24, which is interconnected with the data depot 12 by a communication link 21. Grobler nowhere teaches or suggests use of one or more robotic accessors, wherein each of those accessors comprises two grippers.

Neither Plutt et al., nor Dimitri et al., nor Grobler, singly or in combination, teach or suggest a method which use, or an article of manufacture which comprises, or a computer program product to provide redundant resource availability which uses, an accessor comprising a lifting servo section and a first gripper and a second gripper disposed on that lifting servo section, as recited in Applicants’ claims 2, 14, and 26, respectively.

Neither Plutt et al., nor Dimitri et al., nor Grobler, singly or in combination, teach or suggest a method, or an article of manufacture which implements that method, or a computer program product which implements that method, which requests use of the second gripper disposed on the accessor, as recited in Applicants’ claims 2, 14, and 26, respectively.

In addition, neither Plutt et al., nor Dimitri et al., nor Grobler singly or in combination, teach or suggest a method, or an article of manufacture which implements that method, or a computer program product which implements that method, which determines if use of the

second gripper is authorized, as recited in Applicants' claims 2, 14, and 26, respectively.

Moreover, neither Plutt et al., nor Dimitri et al., nor Grobler, singly or in combination, teach or suggest a method, or an article of manufacture which implements that method, or a computer program product which implements that method, which operates the second gripper if use of that second gripper is authorized, as recited in Applicants' claims 2, 14, and 26, respectively.

The Supreme Court recently addressed the issue of obviousness in *KSR International Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 167 L. Ed. 2d 705 (2007). The Court held that the *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 86 S. Ct. 684, 15 L. Ed. 2d 545 (1966), factors still control an obviousness inquiry. Those factors include "the scope and content of the prior art" and the "differences between the prior art and the claims". *KSR*, 127 S. Ct. at 1734 (quoting *Graham*, 383 U.S. at 17-18).

For the reasons set forth above, Appellants respectfully submit that the prior art of record fails to teach or suggest all the elements of Appellants' claims 2, 14, and 26. Appellants further respectfully submit that the Examiner incorrectly rejects Appellants' claims 2, 14, and 26, under 35 U.S.C. § 103(a) as being unpatentable over Plutt et al. in view of Dimitri et al. and Grobler.

III. THE EXAMINER IMPROPERLY REJECTS CLAIMS 3, 4, 6, 8, 9, 11, 15, 16, 18, 20, 21, 23, 27, 28, 30, 32, 33, and 35, UNDER 35 U.S.C. § 103(a) AS BEING UNPATENTABLE OVER PLUTT ET AL. IN VIEW OF DIMITRI ET AL.

A. *The Examiner Improperly Rejects Claims 3, 15, And 27 Under 35 U.S.C. § 103(A) As Being Unpatentable Over Plutt Et Al. In View Of Dimitri Et Al.*

Plutt et al. teach a storage library system comprising one or more redundant robots disposed therein. Col. 1 / Lines 41-55. Each of Plutt's robots comprise one gripper assembly 201. Col. 3 / Lines 30-48.

Dimitri et al. teach a data storage library which comprises multiple intelligent robots, i.e. "pickers." Paragraph [0010]. Dimitri et al. teach use of pickers which comprise one gripper. Paragraph [0042]. "Each picker includes a gripper 25 . . . a plurality of servo motors to move the picker in the X direction, to move the gripper in the Y direction . . ." Paragraph [0042]. FIG. 1 shows two pickers each comprising a single gripper 25.

Neither Plutt et al., nor Dimitri et al., singly or in combination, teach or suggest a method which uses, or an article of manufacture which comprises, or a computer program product to provide accessor resource availability which uses, a first accessor comprising a lifting servo section and a first gripper and a second gripper disposed on that lifting servo section, in combination with a second accessor, as recited in Applicants' claims 3, 15, and 27, respectively.

Neither Plutt et al., nor Dimitri et al., singly or in combination, teach or suggest a method, or an article of manufacture which implements that method, or a computer program product which implements that method, which requests use of the second accessor, as recited in Applicants' claims 3, 15, and 27, respectively.

In addition, neither Plutt et al., nor Dimitri et al., singly or in combination, teach or suggest a method, or an article of manufacture which implements that method, or a computer program product which implements that method, which determines if use of the second accessor is authorized, as recited in Applicants' claims 3, 15, and 27, respectively.

Moreover, neither Plutt et al., nor Dimitri et al., singly or in combination, teach or suggest a method, or an article of manufacture which implements that method, or a computer program product which implements that method, which operates the second accessor if use of that second accessor is authorized, as recited in Applicants' claims 3, 15, and 27, respectively.

The Supreme Court recently addressed the issue of obviousness in *KSR International Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 167 L. Ed. 2d 705 (2007). The Court held that the *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 86 S. Ct. 684, 15 L. Ed. 2d 545 (1966), factors still control an obviousness inquiry. Those factors include "the scope and content of the prior art" and the "differences between the prior art and the claims". *KSR*, 127 S. Ct. at 1734 (quoting *Graham*, 383 U.S. at 17-18). For the reasons set forth above, Appellants respectfully submit that the prior art of record fails to teach or suggest all the elements of Appellants' claims 3, 15, and 27.

In addition, Appellants respectfully submit that Plutt et al. teaches away from claims 3, 15, and 27. Plutt et al. teach use of either spare robots or redundant robots. Regarding use of the spare robots, Plutt et al. teach "[t]he present invention uses a 'hot spare' method to provide seamless transition from failed robotics to redundant backup units." Col. 3 / Lines 63-65.

Regarding use of the redundant robots, Plutt et al. teach "the redundant robots are available without the need for direct user intervention." Col. 4 / Lines 15-17.

Thus, Plutt et al. teach use of either “spare” or “redundant” robots without making a request therefore, and with determining if use of that second robot is authorized. Plutt et al. teach two methods, each of which include initializing ALL the library robots. For example, in step 614 of the method of FIG. 6 Plutt et al. teach “LIBRARY INITIALIZES ALL ROBOTS.” Plutt et al. teach “[a]fter the library finishes setting the operations mode, it initializes all robots and installs software to calibrate mechanisms and audit library contents (step 614). The library then starts and comes online (step 615).” Col. 5 / Lines 6-9.

In step 714 of the method of FIG. 7 Plutt et al. teach “LIBRARY INITIALIZES ALL ROBOTS.” Plutt et al. teach “[a]fter the operations mode has been set by the operator, the library initializes all robots and installs software to calibrate mechanisms and audit library contents (step 714). The library then starts and comes online (step 715).” Col. 5 / Lines 64-67.

“A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.” *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994); *see KSR*, 127 S. Ct. at 1739-40 (explaining that when the prior art teaches away from a combination, that combination is more likely to be nonobvious).

One of ordinary skill in the art following the teachings of Plutt et al. and Dimitri et al. would be motivated to use a library comprising a plurality of robots, wherein each of those robots comprises a single gripper, and wherein each of those robots is always made operational. On the other hand, one of ordinary skill in the art following the teachings of Plutt et al. and Dimitri et al. would find no motivation to use a library comprising a first accessor comprising two grippers in combination with a second accessor, wherein the first accessor is operational

but the second accessor is not, making a request to use the second accessor, determining if use of the second accessor is authorized, and if use of the second accessor is authorized making that second accessor operational, as recited in Appellants' claims 3, 15, and 27.

Appellants respectfully submit that the Examiner incorrectly rejects Appellants' claims 3, 15, and 27, under 35 U.S.C. § 103(a) as being unpatentable over Plutt et al. in view of Dimitri et al.

B. The Examiner Improperly Rejects Claims 4, 6, 8, 9, and 11 Under 35 U.S.C. § 103(A) As Being Unpatentable Over Plutt Et Al. In View Of Dimitri Et Al.

Claims 4, 6, 8, 9, and 11 depend, directly or indirectly, from claim 3. Under 35 U.S.C. § 112, fourth paragraph, "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." Therefore, claims 4, 6, 8, 9, and 11, include all the elements of claim 3. "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." MPEP 2143.03; *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed.Cir. 1988).

For the reasons set forth above, Appellants respectfully submit that Plutt et al., in view of Dimitri et al., do not render obvious Appellants' claim 3. This being the case, Appellants further respectfully submit that claims 4, 6, 8, 9, and 11, are non-obvious over Plutt et al., in view of Dimitri et al.

C. *The Examiner Improperly Rejects Claims 16, 18, 20, 21, 23, Under 35 U.S.C. § 103(A) As Being Unpatentable Over Plutt Et Al. In View Of Dimitri Et Al.*

Claims 16, 18, 20, 21, 23, depend, directly or indirectly, from claim 15. Under 35 U.S.C. § 112, fourth paragraph, “a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.” Therefore, claims 16, 18, 20, 21, 23, include all the elements of claim 15. “If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious.” MPEP 2143.03; *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed.Cir. 1988).

For the reasons set forth above, Appellants respectfully submit that Plutt et al., in view of Dimitri et al., do not render obvious Appellants’ claim 15. This being the case, Appellants further respectfully submit that claims 16, 18, 20, 21, 23, are non-obvious over Plutt et al., in view of Dimitri et al.

D. *The Examiner Improperly Rejects Claims 28, 30, 32, 33, and 35, Under 35 U.S.C. § 103(A) As Being Unpatentable Over Plutt Et Al. In View Of Dimitri Et Al.*

Claims 28, 30, 32, 33, and 35, depend, directly or indirectly, from claim 27. Under 35 U.S.C. § 112, fourth paragraph, “a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.” Therefore, claims 28, 30, 32, 33, and 35, include all the elements of claim 27. “If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious.” MPEP 2143.03; *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed.Cir. 1988).

For the reasons set forth above, Appellants respectfully submit that Plutt et al., in view of Dimitri et al., do not render obvious Appellants’ claim 27. This being the case, Appellants

further respectfully submit that claims 28, 30, 32, 33, and 35, are non-obvious over Plutt et al., in view of Dimitri et al.

IV. THE EXAMINER IMPROPERLY REJECTS CLAIMS 5, 7, 10, 12, 17, 19, 22, 24, 29, 31, 34, and 36, UNDER 35 U.S.C. § 103(a) AS BEING UNPATENTABLE OVER PLUTT ET AL. IN VIEW OF DIMITRI ET AL. AND GROBLER

A. Claims 3, 15, And 27 Are Patentable Over Plutt Et Al. In View Of Dimitri Et Al. And Grobler

Plutt et al. teach a storage library system comprising one or more redundant robots disposed therein. Col. 1 / Lines 41-55. Each of Plutt's robots comprise one gripper assembly 201. Col. 3 / Lines 30-48.

Dimitri et al. teach a data storage library which comprises multiple intelligent robots, i.e. "pickers." Paragraph [0010]. Dimitri et al. teach use of pickers which comprise one gripper. [0042]. "Each picker includes a gripper 25 . . . a plurality of servo motors to move the picker in the X direction, to move the gripper in the Y direction . . ." [0042]. FIG. 1 shows two pickers each comprising a single gripper 25.

Grobler teaches a data vending system 10 comprising a data depot 12 comprising searchable data. A user access the data depot 12 using a vendor 14, 16, 18, comprising a data dispensing device 20, 22, 24, which is interconnected with the data depot 12 by a communication link 21. Grobler nowhere teaches or suggests use of one or more robotic accessors, wherein each of those accessors comprises two grippers.

Neither Plutt et al., nor Dimitri et al., nor Grobler, singly or in combination, teach or suggest a method which uses, or an article of manufacture which comprises, or a computer program product to provide accessor resource availability which uses, a first accessor comprising a lifting servo section and a first gripper and a second gripper disposed on that

lifting servo section, in combination with a second accessor, as recited in Applicants' claims 3, 15, and 27, respectively.

Neither Plutt et al., nor Dimitri et al., nor Grobler, singly or in combination, teach or suggest a method, or an article of manufacture which implements that method, or a computer program product which implements that method, which requests use of the second accessor, as recited in Applicants' claims 3, 15, and 27, respectively.

In addition, neither Plutt et al., nor Dimitri et al., nor Grobler, singly or in combination, teach or suggest a method, or an article of manufacture which implements that method, or a computer program product which implements that method, which determines if use of the second accessor is authorized, as recited in Applicants' claims 3, 15, and 27, respectively.

Moreover, neither Plutt et al., nor Dimitri et al., nor Grobler, singly or in combination, teach or suggest a method, or an article of manufacture which implements that method, or a computer program product which implements that method, which operates the second accessor if use of that second accessor is authorized, as recited in Applicants' claims 3, 15, and 27, respectively.

The Supreme Court recently addressed the issue of obviousness in *KSR International Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 167 L. Ed. 2d 705 (2007). The Court held that the *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 86 S. Ct. 684, 15 L. Ed. 2d 545 (1966), factors still control an obviousness inquiry. Those factors include "the scope and content of the prior art" and the "differences between the prior art and the claims". *KSR*, 127 S. Ct. at 1734 (quoting *Graham*, 383 U.S. at 17-18). For the reasons set forth above, Appellants respectfully

submit that the prior art of record fails to teach or suggest all the elements of Appellants' claims 3, 15, and 27.

In addition, Appellants respectfully submit that Plutt et al. teaches away from claims 3, 15, and 27. Plutt et al. teach use of either spare robots or redundant robots. Regarding use of the spare robots, Plutt et al. teach "[t]he present invention uses a 'hot spare' method to provide seamless transition from failed robotics to redundant backup units." Col. 3 / Lines 63-65. Regarding use of the redundant robots, Plutt et al. teach "the redundant robots are available without the need for direct user intervention." Col. 4 / Lines 15-17.

Thus, Plutt et al. teach use of either "spare" or "redundant" robots without making a request therefore, and with determining if use of that second robot is authorized. Plutt et al. teach two methods, each of which include initializing ALL the library robots. For example, in step 614 of the method of FIG. 6 Plutt et al. teach "LIBRARY INITIALIZES ALL ROBOTS." Plutt et al. teach "[a]fter the library finishes setting the operations mode, it initializes all robots and installs software to calibrate mechanisms and audit library contents (step 614). The library then starts and comes online (step 615)." Col. 5 / Lines 6-9.

In step 714 of the method of FIG. 7 Plutt et al. teach "LIBRARY INITIALIZES ALL ROBOTS." Plutt et al. teach "[a]fter the operations mode has been set by the operator, the library initializes all robots and installs software to calibrate mechanisms and audit library contents (step 714). The library then starts and comes online (step 715)." Col. 5 / Lines 64-67.

"A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant." *In re Gurley*, 27

F.3d 551, 553 (Fed. Cir. 1994); *see KSR*, 127 S. Ct. at 1739-40 (explaining that when the prior art teaches away from a combination, that combination is more likely to be nonobvious).

One of ordinary skill in the art following the teachings of Plutt et al. and Dimitri et al. would be motivated to use a library comprising a plurality of robots, wherein each of those robots comprises a single gripper, and wherein each of those robots is always made operational. On the other hand, one of ordinary skill in the art following the teachings of Plutt et al. and Dimitri et al. would find no motivation to use a library comprising a first accessor comprising two grippers in combination with a second accessor, wherein the first accessor is operational but the second accessor is not, making a request to use the second accessor, determining if use of the second accessor is authorized, and if use of the second accessor is authorized making that second accessor operational, as recited in Appellants' claims 3, 15, and 27.

Appellants respectfully submit that claims 3, 15, and 27 are patentable over Plutt et al. in view of Dimitri et al. and Grobler.

B. The Examiner Improperly Rejects Claims 5, 7, 10, 12, Under 35 U.S.C. § 103(A) As Being Unpatentable Over Plutt Et Al. In View Of Dimitri Et Al. And Grobler

Claims 5, 7, 10, 12, depend, directly or indirectly, from claim 3. Under 35 U.S.C. § 112, fourth paragraph, "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." Therefore, claims 5, 7, 10, 12, include all the elements of claim 3. "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." MPEP 2143.03; *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed.Cir. 1988).

For the reasons set forth above, Appellants respectfully submit that Plutt et al., in view

of Dimitri et al. and Grobler, do not render obvious Appellants' claim 3. This being the case, Appellants further respectfully submit that claims 5, 7, 10, 12, are non-obvious over Plutt et al., in view of Dimitri et al. and Grobler.

**C. *The Examiner Improperly Rejects Claims 17, 19, 22, 24, Under
35 U.S.C. § 103(A) As Being Unpatentable Over Plutt Et Al.
In View Of Dimitri Et Al. And Grobler***

Claims 17, 19, 22, 24, depend, directly or indirectly, from claim 15. Under 35 U.S.C. § 112, fourth paragraph, "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." Therefore, claims 17, 19, 22, 24, include all the elements of claim 15. "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." MPEP 2143.03; *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed.Cir. 1988).

For the reasons set forth above, Appellants respectfully submit that Plutt et al., in view of Dimitri et al. and Grobler, do not render obvious Appellants' claim 15. This being the case, Appellants further respectfully submit that claims 17, 19, 22, 24, are non-obvious over Plutt et al., in view of Dimitri et al. and Grobler.

**D. *The Examiner Improperly Rejects Claims 29, 31, 34, and 36, Under
35 U.S.C. § 103(A) As Being Unpatentable Over Plutt Et Al.
In View Of Dimitri Et Al. And Grobler***

Claims 29, 31, 34, and 36, depend, directly or indirectly, from claim 27. Under 35 U.S.C. § 112, fourth paragraph, "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." Therefore, claims 29, 31, 34, and 36, include all the elements of claim 27. "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." MPEP 2143.03; *In re Fine*,

837 F.2d 1071, 5 USPQ2d 1596 (Fed.Cir. 1988).

For the reasons set forth above, Appellants respectfully submit that Plutt et al., in view of Dimitri et al. and Grobler, do not render obvious Appellants' claim 27. This being the case, Appellants further respectfully submit that claims 29, 31, 34, and 36, are non-obvious over Plutt et al., in view of Dimitri et al. and Grobler.

CONCLUSION

In view of the foregoing, Appellants respectfully request that the Examiner's rejection of the subject application be reversed in all respects.

Respectfully submitted,

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/Reena Mendez/

Signature

08/13/07

Date of Signature

CLAIMS APPENDIX A

1. A method to provide selectable redundant accessor availability in a data storage and retrieval system, comprising the steps of:

providing a data storage and retrieval system comprising one or more data storage devices and an accessor, wherein said accessor comprises a lifting servo section and a first gripper and a second gripper disposed on said lifting servo section;

operating said first gripper;

requesting use of said second gripper;

determining if use of said second gripper is authorized;

if use of said second gripper is authorized, operating said second gripper.

2. The method of claim 1, further comprising the following steps:

providing a software key;

providing said software key to said data storage and retrieval system to authorize the use of said second gripper.

3. A method to provide selectable redundant accessor availability in a data storage and retrieval system, comprising the steps of:

providing a data storage and retrieval system comprising one or more data storage devices, a first accessor, and a second accessor, wherein said first accessor comprises a lifting servo section and a first gripper and a second gripper disposed on said lifting servo section;

operating said first accessor but not said second accessor;

requesting use of said second accessor;

determining if use of said second accessor is authorized;

if use of said second accessor is authorized, operating said second accessor.

4. The method of claim 3, wherein said data storage and retrieval system further comprises at least one of software and firmware to operate said first accessor and said second accessor.

5. The method of claim 3, further comprising the following steps:

providing a software key;

providing said software key to said data storage and retrieval system to authorize the use of said second accessor.

6. The method of claim 3, wherein said requesting step comprises requesting use of said second accessor for cold-standby availability, and wherein said determining step comprises determining if use of said second accessor is authorized for cold-standby availability, and wherein said operating step comprises operating said second accessor for cold-standby availability if use of said second accessor is authorized for cold-standby availability.

7. The method of claim 6, further comprising the following steps:

providing a software key;

providing said software key to said data storage and retrieval system to authorize the use of said second accessor for cold-standby availability;

8. The method of claim 3, wherein said requesting step comprises requesting use of said second accessor for hot-standby availability, and wherein said determining step comprises determining if use of said second accessor is authorized for hot-standby availability, and wherein said operating step comprises operating said second accessor for hot-standby availability if use of said second accessor is authorized for hot-standby

availability.

9. The method of claim 8, further comprising the steps of:

monitoring the operation of said first accessor;

if a failure of said first accessor is detected, operating said second accessor.

10. The method of claim 8, further comprising the following steps:

providing a software key;

providing said software key to said data storage and retrieval system to authorize the use of said second accessor for hot-standby availability.

11. The method of claim 3, wherein said requesting step comprises requesting use of said second accessor for dual-active accessor availability, and wherein said determining step comprises determining if use of said second accessor is authorized for dual-active accessor availability, and wherein said operating step comprises operating said second accessor and said first accessor simultaneously if use of said second accessor is authorized for dual-active accessor availability.

12. The method of claim 11, further comprising the following steps:

providing a software key;

providing said software key to said data storage and retrieval system to authorize the use of said second accessor and said first accessor simultaneously.

13. An article of manufacture comprising one or more data storage devices and an accessor comprising a lifting servo section and a first gripper and a second gripper disposed on said lifting servo section, and a computer readable medium having computer readable program code disposed therein to provide selectable redundant accessor availability, the computer readable program code comprising a series of computer

readable program steps to effect:

operating said first gripper;

receiving a request to use said second gripper;

determining if use of said second gripper is authorized;

if use of said second gripper is authorized, operating said second gripper.

14. The article of manufacture of claim 13, said computer readable program code further comprising a series of computer readable program steps to effect receiving a software key authorizing use of said second gripper.

15. An article of manufacture comprising one or more data storage devices, a first accessor, a second accessor, wherein said first accessor comprises a lifting servo section and a first gripper and a second gripper disposed on said lifting servo section and a computer readable medium having computer readable program code disposed therein to provide selectable redundant accessor availability, the computer readable program code comprising a series of computer readable program steps to effect:

operating said first accessor but not said second accessor;

receiving a request to use said second accessor;

determining if use of said second accessor is authorized;

if use of said second accessor is authorized, operating said second accessor.

16. The article of manufacture of claim 15 further comprising at least one of software and firmware to operate said first accessor and said second accessor.

17. The article of manufacture of claim 15, said computer readable program code further comprising a series of computer readable program steps to effect receiving a software key to authorize use of said second accessor.

18. The article of manufacture of claim 15, wherein said computer readable program code to receive a request to use said second accessor comprises a series of computer readable program steps to receive a request for cold-standby availability for said second accessor, and wherein said computer readable program code to determine if use of said second accessor is authorized comprises a series of computer readable program steps to determine if use of said second accessor is authorized for cold-standby availability, and wherein said computer readable program code to operate said second accessor comprises a series of computer readable program steps to operate said second accessor for cold-standby availability if use of said second accessor is authorized for cold-standby availability.

19. The article of manufacture of claim 18, said computer readable program code further comprising a series of computer readable program steps to effect receiving a software key to authorize use of said second accessor for cold-standby availability.

20. The article of manufacture of claim 15, wherein said computer readable program code to receive a request to use said second accessor comprises a series of computer readable program steps to receive a request for hot-standby availability for said second accessor, and wherein said computer readable program code to determine if use of said second accessor is authorized comprises a series of computer readable program steps to determine if use of said second accessor is authorized for hot-standby availability, and wherein said computer readable program code to operate said second accessor comprises a series of computer readable program steps to operate said second accessor for hot-standby availability if use of said second accessor is authorized for hot-standby availability.

21. The article of manufacture of claim 20, said computer readable program code further comprising a series of computer readable program steps to effect:

monitoring the operation of said first accessor;

if a failure of said first accessor is detected, operating said second accessor.

22. The article of manufacture of claim 20, said computer readable program code further comprising a series of computer readable program steps to effect receiving a software key authorizing use of said second accessor for hot-standby availability.

23. The article of manufacture of claim 15, wherein said computer readable program code to receive a request to use said second accessor comprises a series of computer readable program steps to receive a request for dual-active accessor availability, and wherein said computer readable program code to determine if use of said second accessor is authorized comprises a series of computer readable program steps to determine if dual-active accessor availability is authorized, and wherein said computer readable program code to operate said second accessor comprises a series of computer readable program steps to simultaneously operate said first accessor and said second accessor if dual-active accessor availability is authorized.

24. The article of manufacture of claim 23, said computer readable program code further comprising a series of computer readable program steps to effect receiving a software key authorizing dual-active accessor availability.

25. A computer program product embodied in an information storage medium, said computer program product being usable with a programmable computer processor to provide selectable redundant accessor availability in a data storage and retrieval system comprising one or more data storage devices and an accessor, wherein said accessor

comprises a lifting servo section and a first gripper and a second gripper disposed on said lifting servo section, comprising:

computer readable program code which causes said programmable computer processor to operate said first gripper;

computer readable program code which causes said programmable computer processor to receive a request to use said second gripper;

computer readable program code which causes said programmable computer processor to determine if use of said second gripper is authorized;

computer readable program code which, if use of said second gripper is authorized, causes said programmable computer processor to operate said second gripper.

26. The computer program product of claim 25, further comprising computer readable program code which causes said programmable computer processor to receive a software key authorizing use of said first gripper and said second gripper.

27. A computer program product embodied in an information storage medium, said computer program product being usable with a programmable computer processor to provide selectable redundant accessor availability in a data storage and retrieval system comprising one or more data storage devices, a first accessor, and a second accessor, wherein said first accessor comprises a lifting servo section and a first gripper and a second gripper disposed on said lifting servo section, comprising:

computer readable program code which causes said programmable computer processor to operate said first accessor but not said second accessor;

computer readable program code which causes said programmable computer processor to receive a request to use said second accessor;

computer readable program code which causes said programmable computer processor to determine if use of said second accessor is authorized;

computer readable program code which, if use of said second accessor is authorized, causes said programmable computer processor to operate said second accessor.

28. The computer program product of claim 27, wherein said data storage and retrieval system further comprises at least one of software and firmware to operate said first accessor and said second accessor.

29. The computer program product of claim 27, further comprising computer readable program code which causes said programmable computer processor to receive a software key authorizing use of said second accessor.

30. The computer program product of claim 27, wherein said computer readable program code to receive a request to use said second accessor comprises computer readable program code which causes said programmable computer processor to receive a request for cold-standby availability for said second accessor, and wherein said computer readable program code to determine if use of said second accessor is authorized comprises computer readable program code which causes said programmable computer processor to determine if cold-standby availability for said second accessor is authorized, and wherein said computer readable program code to operate said second accessor comprises computer readable program code which, if cold-standby availability for said second accessor is authorized, causes said programmable computer processor to operate said second accessor for cold-standby availability.

31. The computer program product of claim 30, further comprising computer

readable program code which causes said programmable computer processor to receive a software key authorizing use of said second accessor for cold-standby availability.

32. The computer program product of claim 27, wherein said computer readable program code to receive a request to use said second accessor comprises computer readable program code which causes said programmable computer processor to receive a request for hot-standby availability for said second accessor, and wherein said computer readable program code to determine if use of said second accessor is authorized comprises computer readable program code which causes said programmable computer processor to determine if hot-standby availability for said second accessor is authorized, and wherein said computer readable program code to operate said second accessor comprises computer readable program code which, if hot-standby availability for said second accessor is authorized, causes said programmable computer processor to operate said second accessor for hot-standby availability.

33. The computer program product of claim 32, further comprising:
computer readable program code which, if hot-standby availability for said second accessor is authorized, causes said programmable computer processor to monitor the operation of said first accessor;

computer readable program code which, if a failure of said first accessor is detected, causes said programmable computer processor to operate said second accessor.

34. The computer program product of claim 32, further comprising computer readable program code which causes said programmable computer processor to receive a software key authorizing use of said second accessor for hot-standby availability.

35. The computer program product of claim 27, wherein said computer

readable program code to receive a request to use said second accessor comprises computer readable program code which causes said programmable computer processor to receive a request for dual-active accessor availability, and wherein said computer readable program code to determine if use of said second accessor is authorized comprises computer readable program code which causes said programmable computer processor to determine if dual-active accessor availability is authorized, and wherein said computer readable program code to operate said second accessor comprises computer readable program code which, if dual-active accessor availability is authorized, causes said programmable computer processor to simultaneously operate said first accessor and said second accessor.

36. The computer program product of claim 35, further comprising computer readable program code which causes said programmable computer processor to receive a software key authorizing simultaneous operation of said first accessor and said second accessor.

EVIDENCE APPENDIX B

NONE

RELATED PROCEEDINGS APPENDIX C

NONE